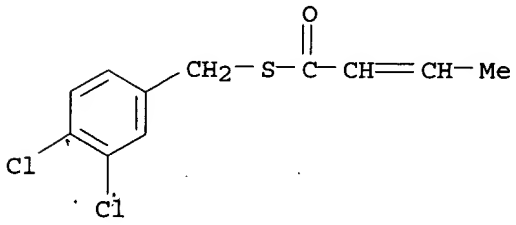
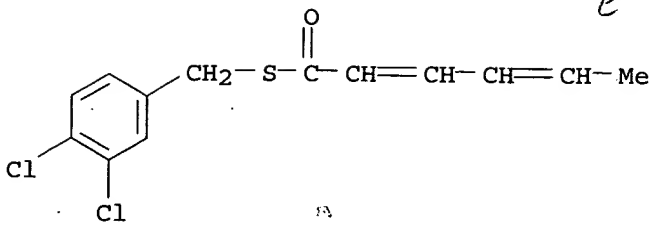
TITLE: Fungicidal 3,4-dichlorobenzyl thioesters
PATENT ASSIGNEE(S): Hokko Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60115560	A2	19850622	JP 1983-223097	19831129
PRIORITY APPLN. INFO.:			JP 1983-223097 A	19831129

OTHER SOURCE(S): CASREACT 103:214997
ED Entered STN: 28 Dec 1985
AB Title compds. I (R = H, alkyl) were prepared Thus, treating 19.3 g 3,4-Cl2C6H3CH2SH with 8.6 g AcCl in benzene gave 22.6 g I (R = Me) (II). II showed fungicidal activity at 0.25 kg/10 acre.
IC ICM C07C153-09
ICS A01N037-02; A01N037-06; A01N037-36; A01N037-42; C07C153-11
CC 25-18 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
IT **Fungicides and Fungistats**
(dichlorobenzyl thioesters)
IT 99229-33-1P 99229-34-2P 99229-35-3P 99229-36-4P 99229-37-5P
99229-38-6P 99229-39-7P 99229-40-0P 99229-41-1P 99229-42-2P
99229-43-3P 99229-44-4P 99229-45-5P **99229-46-6P**
99229-47-7P 99229-48-8P 99229-49-9P 99229-50-2P
99229-51-3P 99229-52-4P 99229-53-5P 99229-54-6P 99229-55-7P
99229-56-8P 99229-57-9P 99229-58-0P 99229-59-1P 99229-60-4P
99229-61-5P 99229-62-6P 99229-63-7P 99229-64-8P 99229-65-9P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and **fungicidal** activity of)
IT **99229-46-6P 99229-47-7P**
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and **fungicidal** activity of)
RN 99229-46-6 HCAPLUS
CN 2-Butenethioic acid, S-[(3,4-dichlorophenyl)methyl] ester (9CI) (CA INDEX NAME)



RN 99229-47-7 HCAPLUS
CN 2,4-Hexadienethioic acid, S-[(3,4-dichlorophenyl)methyl] ester (9CI) (CA INDEX NAME)



L122 ANSWER 19 OF 86 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1956:73735 HCAPLUS
DOCUMENT NUMBER: 50:73735
ORIGINAL REFERENCE NO.: 50:13808a-e
TITLE: Thiol esters. I
AUTHOR(S): Miyaki, Komei; Yamagishi, Saburo
CORPORATE SOURCE: Chiba Univ.
SOURCE: Yakugaku Zasshi (1956), 76, 436-40
CODEN: YKKZAJ; ISSN: 0031-6903
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
ED Entered STN: 22 Apr 2001
AB p-EtO2COC6H4CO2H (5 g.) and 6 mL. SOCl2 heated 1 h. at 90-100° and the product distilled in vacuo gave 5 g. p-EtO2COC6H4COCl (I), b. 140-3°. I (5 g.), 2.6 g. PhSH, and 20 mL. C5H5N mixed at 0°, allowed to stand 1 h. at 50°, the product poured in ice water and recrystd. from EtOH gave 5 g. p-EtO2COC6H4COSPh (II), columns, m. 99-101°. II (1 g.), 4 mL. 2N NaOH, and 8 mL. EtOH refluxed 30 min., the EtOH removed and the residue extracted with Et2O gave 0.6 g. p-HOC6H4COSPh, m. 169-73° (from dilute EtOH). The following thiol esters are prepared from reaction of thiols and acid chlorides (thiol esters, b.p./mm. or m.p. given): MeCOSPh, 95°/7; MeCOSC6H4Me-p, 100°/5; MeCH2CH2COSPh, 120-2°/9; Me2CHCOSPh, 127-9°/10; n-C5H11COSPh, 150-2°/13; n-C7H15COSPh, 165-8°; MeCH:CHCOSPh, 140-53°/5; Me(CH:CH)2COSPh, 150-60°/5; MeCHClCH2COSPh, 136-9°/10; MeCOSC6H4Br-p, 114°/6; MeCOSCH2Ph, 120°/10; BzSCH2Ph, 184-5°/7, m. 36-8°; PhCOSCH2CONHC10H7-2, m. 162-3°; PhCOSPh, m. 55-6°; PhCOSC6H4Me-p, m. 75-6°; PhCOSC6H4Br-p, m. 84-5°; PhCH2COSPh, 160-1°/3, m. 40°; 4-ClC6H4COSPh, m. 81.5-3.0°; 4-ClC6H4COSC6H4Me-p, m. 108-10°; 2-ClC6H4COSPh, m. 60°; 4-O2NC6H4COSPh, m. 159-60°; 4-O2NC6H4COSC6H5Me-p, m. 113-14°; 3-O2NC6H4COSPh, m. 131-2°; 2-O2NC6H4COSPh, m. 100°; 2-C10H7COSPh, m. 120-1°; 3,4-CH2O2C6H3COSPh, m. 83-5°; 2-HOC6H4COSPh (III), m. 54-5°; 2-AcOC6H4COSPh, m. 85-6°; 4-MeOC6H4COSPh, m. 93-5°; 4-AcOC6H4COSPH, m. 84-5°; PhCH:CHCOSPh, m. 76-8°; PhCH:CHCOSC6H4Me-p, m. 78-9°. Ph thioacetate and thiophenyl esters of aliphatic carboxylic acids inhibit the growth of fungi in 10-3 to 10-4M. On the other hand, the thiol esters such as PhCH2 and Et thioacetate failed to show any antifungal activity, from which it is assumed that the antifungal activity lies in RCOSPh. In case of aromatic esters, besides BzSPh, III and 4-HOC6H4COSPh alone showed antifungal activity. Only about 8% of BzSPh is hydrolyzed into BzOH and PhSH by the enzymic preparation of Willia anomala. Even from this point, the appearance of antifungal activity seems to require the structure of RCOSPh.
CC 10 (Organic Chemistry)
IT **Fungicides or Fungistats**

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L40: Entry 28 of 33 File: JPAB Aug 15, 1985

PUB-NO: JP360155102A
DOCUMENT-IDENTIFIER: JP 60155102 A
TITLE: SOIL GERMICIDE

PUBN-DATE: August 15, 1985

INVENTOR-INFORMATION:

NAME	COUNTRY
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UMEDA, TEN	
ARAKAWA, MASAZUMI	

ASSIGNEE-INFORMATION:

NAME	COUNTRY
HOKKO CHEM IND CO LTD	

APPL-NO: JP59009498
APPL-DATE: January 24, 1984

INT-CL (IPC): A01N 41/12; A01N 41/02; A01N 41/04

ABSTRACT:

PURPOSE: A soil germicide, containing a 3,4-dichlorobenzyl mercaptan as an active constituent, capable of exhibiting improved controlling effect on fusarium blights with low toxicity to humans and animals without requiring gas venting operation, etc., and capable of controlling with saved labor without giving phytotoxicity to crops.

CONSTITUTION: A soil germicide containing 3,4-dichlorobenzyl mercaptan expressed by formula I which is a well-known compound and a disulfide expressed by formula II which is an oxidized derivative thereof, a thiolsulfinate expressed by formula III, a thiolsulfonate expressed by formula IV, sulfinyl sulfone, sulfinic acid or sulfonic acid, etc. as an active constituent. The disulfide expressed by formula II is obtained by oxidizing the compound expressed by formula I with 1/2mol H_2O_2. Preferably, the above-mentioned germicide is formulated into an emulsion, sol, wettable powder, granule, powder, etc. for use. The germicide is very effective against fusarium blights such as fusarium wilt of cucumbers and tomatoes, blight caused by Fusarium oxysporum of eggplants, fusarium yellow of cabbages, etc.

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PATENT ABSTRACTS OF JAPAN

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(51)Int.Cl. C07C153/09
A01N 37/02
A01N 37/06
A01N 37/36
A01N 37/42
C07C153/11

(21)Application number : 58-223097

(22)Date of filing : 29.11.1983

(71)Applicant : HOKKO CHEM IND CO LTD

(72)Inventor : OOYAMA HIROSHI
UMEDA TEN
ARAKAWA MASAZUMI

(54) 3,4-DICHLOROBENZYLTHIOL ESTER DERIVATIVE AND SOIL GERMICIDE

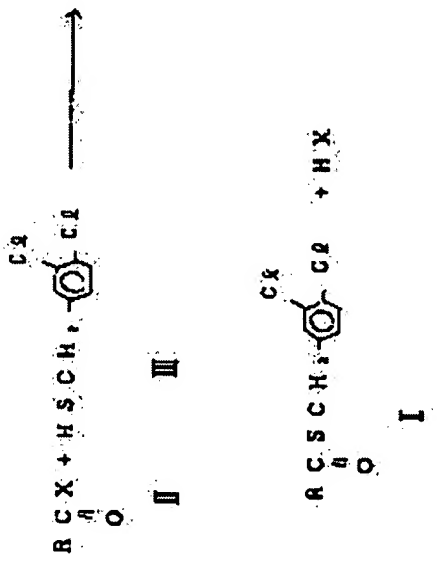
(57)Abstract:

NEW MATERIAL:A compound of formula I (R is H or alkyl which may be divided by O, S, etc. or substituted by halogen, phenyl or phenoxy).

EXAMPLE: S-3,4-Dichlorobenzyl thioacetate.

USE: A soil germicide very effective against fusarium wilt of cucumbers and tomatoes, blight caused by Fusasium oxysporn Schelechendahl, f. melongenae Matuo et Ishigami of eggplants, fusarium yellows of cabbages, etc. with very low toxicity to humans and cattle.

PREPARATION: An acid halide or an acid anhydride of formula II is reacted with 3,4-



dichlorobenzyl mercaptan of formula III to give the aimed compound of formula I . The reaction is preferably carried out using a solvent, which is not essential. The compound of formula I is a soil germicide without giving phytotoxicity to crops nor requiring gas venting operation, etc. and contributing to controlling with saved energy.

LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]